

**A METHOD FOR SIGNALLING DTX PERIODS AND ALLOCATION OF  
NEW CHANNELS IN A STATISTICAL MULTIPLEXED RADIO INTERFACE**

**ABSTRACT OF THE DISCLOSURE**

A method for operating a wireless communications system includes a step of signalling, between a mobile station to a network, that the mobile station or the network is temporarily ceasing transmission of circuit switched information (DTX), which could be voice frames or data frames. For the case of voice, the method further includes a step, executed in the network, of determining if a current uplink or downlink voice traffic channel that is assigned to the mobile station can be retained by the mobile station, or whether the current uplink or downlink voice traffic channel must be released by the mobile station. Only if it is determined that the current uplink or downlink voice traffic channel must be released by the mobile station, does the network signal to the mobile station to release the channel. The step of determining preferably considers a current network requirement for uplink voice traffic channels, and the step of signalling that the mobile station or the network is temporarily ceasing transmission of voice frames occurs in response to the mobile station or the network entering a Discontinuous Transmission (DTX) state. The retained channel may be later released during the DTX period, if the network determines that the channel is required to support another mobile station.